



# News From Responsive Management™

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January 2009

## ***Increasing Hunting Participation by Investigating Factors Related to Hunting License Sales Increases in 1992, 1999, and 2004***

Responsive Management and the Georgia Department of Natural Resources, under a Hunting Heritage Partnership grant, recently conducted a two-phase study to identify and explore in detail the factors that led to and encouraged three discrete increases in hunting license sales over the past two decades.

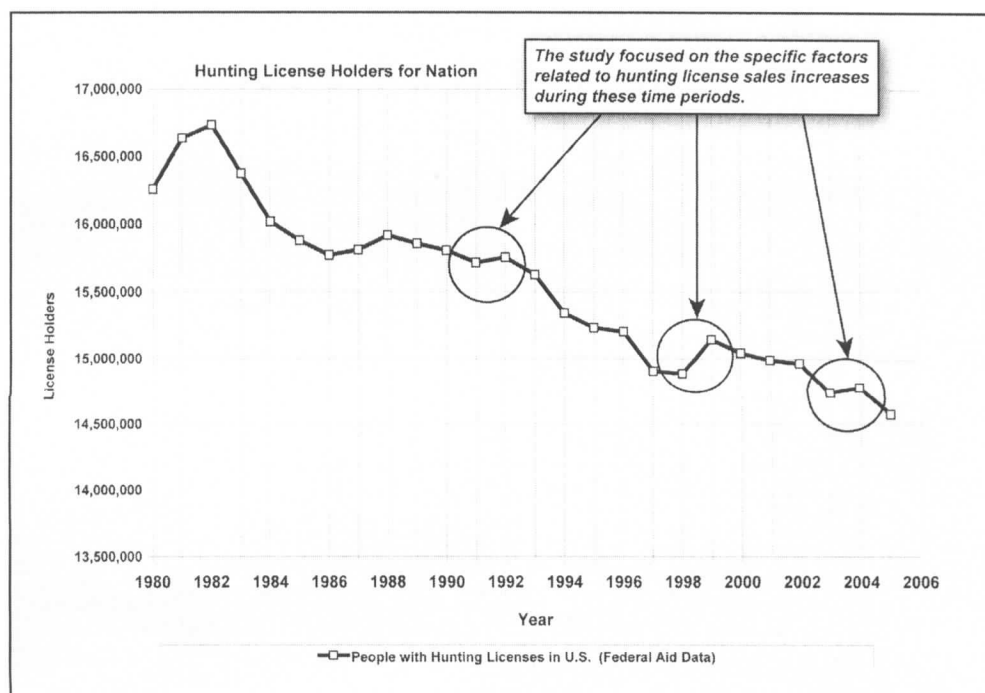
After reaching a peak in 1982, sales of hunting licenses across the United States have steadily declined on the national level, according to U.S. Fish and Wildlife Service Federal Aid data. However, in the years since 1990, there have been three notable exceptions to the overall rate of national decline: the number of hunting license holders across the nation increased in 1992, 1999, and 2004.

The study considered the potential for both internal and external factors to influence license sales. External factors (i.e., factors that state fish and wildlife agencies are unable to influence on their own) involved numerous socioeconomic aspects of the population as measured by the U.S. Census, including weather conditions and prevailing economic conditions. Internal factors concerned the actions of state fish and wildlife agencies. In large part, the study investigated external factors through a quantitative analysis and internal factors through a qualitative analysis.

The first phase of the research involved

analyzing potential external factors that might affect license sales. A total of 43 variables were examined, such as average monthly temperature, ethnic background of the population, consumer prices, Dow Jones Industrial Averages, median income, new housing starts, housing and population densities, and population by age groups. Of all 43 variables analyzed, there were only three statistically significant factors that were associated with hunting license sales on the national level. One factor, square mileage, was positively associated with hunting license sales. The other two factors—being between the ages of 65 and 69, and increases in new housing starts—were negatively associated with hunting license sales.

The age factor is easily explained: the greater the population of residents ages 65 to 69, the more



likely it is that there will be a decline in hunting license sales, because as people age they are less likely to participate in hunting and are less likely to be required to purchase hunting licenses. The significance of the housing starts factor is not so clear. What can be assumed is that, in times of rapid growth in new housing starts, hunting license sales decline.

Why is this? In a 2007 nationwide survey of hunters conducted by Responsive Management, the top occupational category for employed hunters was "construction/carpentry/plumbing/electrical/craftsman." Such a category strongly relates to the work required for new housing. Thus, in times of increased housing starts, it may be that a substantial number of hunters will have less free time to go hunting as they devote more time to work. In addition, "work obligations" is one of the most common reasons cited by hunters for not hunting or not hunting more often. Two separate studies of active and inactive hunters conducted in 1995 and 2008 by Responsive Management showed "work obligations" to be among the top reasons that took away from hunters' enjoyment of hunting or caused them not to hunt.

There could also be an inverse phenomenon at work: in hard economic times, hunters may increasingly turn to hunting to put food on the table, in addition to having more time to hunt in general. In better economic times hunters may feel less of a need to hunt, resulting in fewer license sales. More research is needed to explore this hypothesis: none of the other economic indicators in this study showed a significant correlation to hunting license sales, which increases the likelihood that the increase in sales is related to time available to hunt. The current economic situation in the United States and its future outcome will most likely prove or disprove this hypothesis.

The second phase of the research examined the internal factors that could affect hunting license sales. In states that had an increase in hunting license sales in the years examined, those states' fish and wildlife agencies were asked what they thought might have contributed to the increase. The variables identified by the state fish and wildlife agencies as possibly having an influence on license sales in 1992, 1999, and 2004, in order of their relative impact on license sales, are changes to licenses; changes in the way license sales are tracked or reported; differences between the U.S. Fish and Wildlife Service Federal

Aid data and the states' own records of hunting license sales; a noticeable recovery or increase in sales following a sharp decline in a previous year for various reasons (e.g., fee increases or disease scares); an increased availability of game; state efforts to publicize particular programs, an unusually good hunting season, or a new hunting opportunity; implementation of or increased interest in a specialized hunting program or initiative, such as a youth hunt; a decrease in the license fee, a sharp increase in sales based on an expected increase in license fees, or a relatively low license fee compared to surrounding states; changes to the purchasing process for licenses; changes in hunting regulations; good weather conditions for hunting; and an increased availability of land.

Changes involving licenses appear to be one of the greatest factors with potential to affect license sales. These changes include a change in a particular license type, an increase in the sale of a particular license type, the addition of a new license type, or the discontinuation of a license type. In the three years examined, numerous states demonstrated the effectiveness of such license changes to increase sales. In 1992, 28% of the total national license sales increase for the year was apparently due to some type of change to one or more hunting licenses enacted by 9 states. In 1999, 33% of the total national license sales increase for the year was apparently due to license type changes in 11 states. And in 2004, 37% of the total national license sales increase was apparently due to changes in license types in 10 states.

The findings suggest that changes to license types—in particular changes that introduce new licenses, "repackaged" licenses, or licenses that feature new privileges or opportunities—stimulate license sales. When adequately publicized, such license changes appear to reintroduce or reinforce hunting opportunities into the public consciousness, especially among members of the public who already have an interest in hunting (lapsed hunters, for example). In fact, the findings suggest that in some cases, even licenses that are merely repackaged (that is, licenses that have not been modified except for their appearance) tend to have a positive effect on hunting license purchases.

The complete report, including explanations of the study's methodology, is available at [http://www.responsivemanagement.com/download/reports/HHP\\_License\\_Sales\\_Report.pdf](http://www.responsivemanagement.com/download/reports/HHP_License_Sales_Report.pdf) (923K PDF).